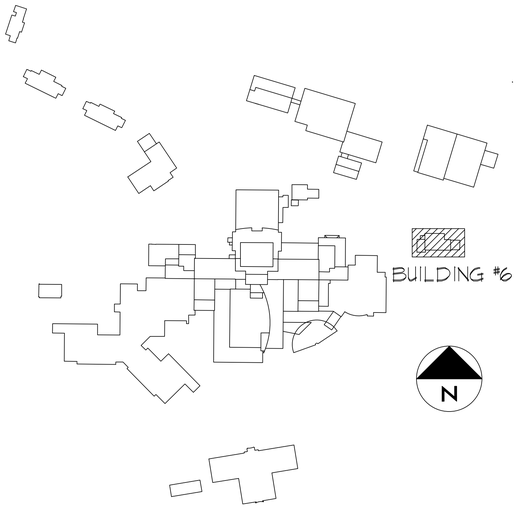
SPRINKLER GENERAL NOTES

1. EXISTING SYSTEMS SHALL REMAIN IN SERVICE UNTIL NEW WORK IS TESTED AND ACCEPTED. INTERRUPTION OF PROTECTION FOR THE PURPOSES OF MAKING TAPS OF EXISTING PIPING OR MAKING INTERCONNECTIONS BETWEEN NEW AND EXISTING WORK SHALL BE COORDINATED IN ADVANCE WITH VA COTR.
2. CONTRACTOR SHALL MAKE MODIFICATIONS TO EXISTING SPRINKLER SYSTEM AS REQUIRED TO PROVIDE COVERAGE IN ACCORDANCE WITH THE LATEST EDITION OF NFPA 13 AND LOCAL AUTHORITY HAVING JURISDICTION. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR APPROVAL PRIOR TO COMMENCING WORK. NEW SPRINKLER HEADS, WHERE NECESSARY, SHALL BE PROVIDED TO MATCH EXISTING STYLE. CONTRACTOR SHALL CENTER SPRINKLER HEADS IN CEILING TILES. RELOCATE EXISTING BRANCH SPRINKLER PIPING AS REQUIRED TO ACCOMMODATE DIFFUSER AND LIGHTING FIXTURE LAYOUTS.
3. CONTRACTOR SHALL PROVIDE AN INDEPENDENT FLOW TEST AS REQUIRED TO CONFIRM FLOW AND PRESSURE AVAILABILITY.
4. CONTRACT DRAWINGS FOR SPRINKLER WORK ARE DIAGRAMMATIC, INTENDED TO CONVEY SCOPE AND GENERAL ARRANGEMENT. CONTRACTOR SHOULD VISIT SITE TO DETERMINE EXACT QUANTITIES AND SCOPE OF WORK.
5. PRIOR TO THE INSTALLATION OF THE SPRINKLER SYSTEM, THE SPRINKLER CONTRACTOR SHALL COORDINATE PIPING, VALVES, SPRINKLER HEADS, ETC. WITH ALL NEW AND EXISTING DUCTWORK, PIPING, CABLE TRAYS, STRUCTURAL MEMBERS AND OTHER DISCIPLINES.
6. ALL PENETRATIONS IN EXISTING OR NEW FIRE RATED WALLS, CEILINGS AND FLOORS SHALL BE SEALED TO THE FULL THICKNESS OF THE PENETRATION WITH A MATERIAL OF EQUAL FIRE RESISTANCE.
7. ALL CUTTING, DRILLING AND PATCHING OF WALLS, FLOORS OR STRUCTURAL MEMBERS FOR THE INSTALLATION OF THE SPRINKLER SYSTEMS SHALL BE PROVIDED BY THE SPRINKLER CONTRACTOR. STRUCTURAL COMPONENTS SHALL NOT BE CUT, DRILLED OR MODIFIED IN ANY WAY WITHOUT THE STRUCTURAL ENGINEER'S REVIEW AND APPROVAL.
8. ALL CEILINGS, WALLS, FLOORS AND FINISHES DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED AND PAINTED TO MATCH EXISTING CONDITIONS.
9. ACTUAL LOCATION OF EXISTING CEILING MOUNTED LIGHTS, RETURN AND SUPPLY DUCTS, AIR GRILLES AND DIFFUSERS, SPRINKLER HEADS, PIPING AND STRUCTURAL SUPPORTS SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR.
10. ALL SPRINKLER PIPING INSTALLED IN FINISHED AREAS SHALL BE CONCEALED (EXCLUDING THE EMPLOYEE GYM).
11. SHOULD THE CONTRACTOR DISCOVER ANY DISCREPANCIES OR OMISSIONS ON THE DRAWINGS OR IN THE SPECIFICATIONS, HE SHALL NOTIFY THE ENGINEER OF SUCH CONDITIONS PRIOR TO THE BID DATE OTHERWISE, IT WILL BE UNDERSTOOD THAT THE DRAWINGS AND SPECIFICATIONS ARE CLEAR AS TO WHAT IS INTENDED AND SHALL BE AS INTERPRETED BY THE ENGINEER.
12. ALL SPRINKLER HEADS INSTALLED BELOW 8'-0" ABOVE FINISHED FLOOR SHALL BE PROVIDED WITH A SPRINKLER HEAD GUARD.
13. SPRINKLER CONTRACTOR SHALL CENTER SPRINKLER HEADS IN CEILING TILES.
14. THE SPRINKLER SYSTEM SHALL REMAIN IN SERVICE AS LONG AS POSSIBLE DURING DEMOLITION ON THE FLOOR. WHEN THE SYSTEM IS TAKEN OUT OF SERVICE, THE OCCUPIED PORTION OF THE FLOOR SHALL REMAIN IN SERVICE. THE UNOCCUPIED PORTIONS SHALL HAVE A FIRE WATCH WHENEVER THE BUILDING IS OCCUPIED. THE FIRE WATCH INSTRUCTIONS CAN BE OBTAINED FROM THE AUTHORITY HAVING JURISDICTION..
15. THOUGH SOME PIPING OFFSETS ARE INDICATED, IT IS NOT THE INTENT OF THE DRAWINGS TO SHOW ALL OFFSETS THAT ARE REQUIRED. THE CONTRACTOR SHALL FULLY COORDINATE THE FIRE PROTECTION AND SPRINKLER WORK WITH THE WORK OF ALL OTHER TRADES TO PROVIDE COMPLETE SYSTEM WITHOUT INTERFERENCES.

MECHANICAL GENERAL NOTES

1. THE MECHANICAL AND PLUMBING CONTRACT DRAWINGS ARE DIAGRAMMATIC AND ARE INTENDED TO INDICATE SCOPE AND THE GENERAL ARRANGEMENT OF THE SYSTEMS. WHERE APPLICABLE THE FOLLOWING NOTES SHALL APPLY TO ALL MECHANICAL (HVAC, PLUMBING, PIPING AND FIRE PROTECTION) SYSTEMS.
2. THOUGH SOME DUCTWORK AND PIPING OFFSETS AND TRANSITIONS ARE INDICATED, IT IS NOT THE INTENT OF THE DRAWINGS TO SHOW ALL OFFSETS AND TRANSITIONS REQUIRED. THE CONTRACTOR SHALL FULLY COORDINATE THE MECHANICAL WORK WITHIN ITSELF AND WITH THE WORK OF ALL OTHER TRADES TO PROVIDE COMPLETE AND OPERABLE SYSTEMS WITHOUT INTERFERENCES.
3. PROVIDE APPROVED FIRE STOPPING MATERIAL AROUND ALL DUCTWORK AND PIPING PENETRATIONS THROUGH FIRE RATED FLOORS AND WALLS. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATIONS OF FIRE RATED FLOORS AND WALLS. PROVIDE FIRE DAMPERS AT ALL DUCT PENETRATIONS THROUGH FLOORS AND FIRE RATED WALLS AND FIRE/SMOKE DAMPERS AT ALL PENETRATIONS THROUGH SHAFT ENCLOSURES.
4. FLASH AND COUNTER FLASH DUCTWORK PENETRATIONS THROUGH ROOF. COORDINATE ROOFING MATERIALS AND INSTALLATION WITH ARCHITECTURAL DETAILS.
5. PROVIDE ACCESS PANELS WHERE REQUIRED FOR ADEQUATE ACCESS TO ALL CONCEALED EQUIPMENT, VALVES, DAMPERS AND CONTROLS.
6. ALL DUCT SIZES REFER TO INTERNAL FREE AREA.
7. ALL DUCTWORK SHALL BE CONSTRUCTED OF RIGID SHEET METAL UNLESS OTHERWISE NOTED.
8. COORDINATE DIFFUSER, REGISTER AND GRILLE LOCATIONS AND BORDER TYPES WITH ARCHITECTURAL REFLECTED CEILING PLAN.
9. INSTALL DUCTWORK AND PIPING MAINS TIGHT TO UNDERSIDE OF STRUCTURE UNLESS OTHERWISE INDICATED.
10. REFER TO MECHANICAL DETAILS FOR TYPICAL EQUIPMENT CONNECTIONS.
11. PIPING CONNECTIONS TO HEATING AND COOLING COILS SHALL BE MADE TO PROVIDE COUNTER FLOW BETWEEN WATER AND AIR.
12. PATCH AND SEAL ALL REMAINING OPENINGS THROUGH FLOORS, WALLS, AND ROOF RESULTING FROM DEMOLITION OR NEW WORK WITH MATERIALS AND FINISHES TO MATCH EXISTING CONSTRUCTION AND FIRE RATING.
13. AS AN INTEGRAL PART OF THESE DOCUMENTS, THE CONTRACTOR SHALL REFER TO THE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
14. CONTRACTOR SHALL VISIT THE SITE AND VERIFY EXISTING CONDITIONS PRIOR TO THE BEGINNING OF ANY WORK. FAILURE TO VISIT THE SITE SHALL IN NO WAY RELIEVE THE CONTRACTOR FROM ANY RESPONSIBILITY.
15. CONTRACTOR SHALL USE CARE WHEN PERFORMING SELECTIVE DEMOLITION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO BUILDING FINISHES, EQUIPMENT, FURNITURE, STRUCTURE, AND MECHANICAL/ELECTRICAL SYSTEMS AND EQUIPMENT. SHOULD ANY DAMAGE OCCUR THE CONTRACTOR SHALL RESTORE DAMAGED AREA/ITEMS TO ORIGINAL CONDITION TO MEET THE VA COTR'S SATISFACTION.
16. CONTRACTOR SHALL NOTIFY AND COORDINATE WITH THE VA COTR'S ANY UTILITY OUTAGES. OWNER SHALL BE GIVEN A MINIMUM OF 72 HOURS NOTICE (THREE WORKING DAYS) FOR ANY OUTAGES.
17. SCHEDULE ALL WORK IN OCCUPIED SPACES WITH OWNER AND CURRENT OCCUPANT AT LEAST TWO (2) WEEKS PRIOR TO CONSTRUCTION.
18. RETURN TO OWNER, AT THEIR DISCRETION, ALL UNUSED MECHANICAL EQUIPMENT (I.E. FAN COIL UNITS, HEATERS, FANS, PUMPS, VAV BOXES, AIR DEVICES, THERMOSTATS AND CONTROLS).



KEYPLAN

MECHANICAL LEGEND

COLD WATER (CW)	BACKFLOW PREVENTER	HEAT TRACED AND INSULATED PIPE
HOT WATER (HW)	BUCKET STRAINER	ROOF DRAIN R.D.
HOT WATER RECIRCULATION (HWR)	WYE STRAINER W/HOSE END VALVE	FUNNEL FLOOR DRAIN F.F.D.
CHILLED WATER SUPPLY CH	FLANGED CONNECTION	FLOOR DRAIN F.D.
CHILLED WATER RETURN CHR	GAUGE AND VALVE	WATER LEAK DETECTOR
HEATING WATER SUPPLY HWH	INLINE CIRCULATING PUMP	GAS METER G
HEATING WATER RETURN HWHR	TEMPERATURE/PRESSURE TEST PORT	EXHAUST AIR DUCT UP (DASHED LINES FOR DOWN)
CONDENSATE DRAIN LINE CD	TEE	FLEXIBLE CONNECTION
SANITARY PIPING	THERMOMETER	FLEXIBLE DUCT
STORM WATER PIPING SW	UNION	DOUBLE THICKNESS TURNING VANES
SPRINKLER PIPING S	PIPING CAP	EXISTING DUCTWORK
LOW PRESSURE STEAM SUPPLY (0-15 PSI) LPS	CONCENTRIC REDUCER	DUCTWORK TO BE REMOVED
LOW PRESSURE STEAM RETURN LPR	ECCENTRIC REDUCER	OPEN ENDED DUCT OED
MEDIUM PRESSURE STEAM SUPPLY (16-60 PSI) MPS	MANUAL AIR VENT	FLEXIBLE DUCT AND EQUIPMENT CONNECTOR
MEDIUM PRESSURE STEAM RETURN MPR	AUTOMATIC AIR VENT	NEW DUCTWORK
HIGH PRESSURE STEAM SUPPLY (MIN. 61 PSI) HPS	PIPE GUIDE OR SLEEVE	DUCT TRANSITION ROUND TO RECTANGULAR
HIGH PRESSURE STEAM RETURN HPR	PIPE ANCHOR	DUCT TRANSITION
END OF MAIN DRIP EMD	PIPING ELBOW DOWN	CHANGE IN DUCT ELEVATION (R-RISE, D-DROP) R D
CHECK VALVE	PIPING ELBOW UP	DUCT SIZE (FIRST FIGURE IS SIDE SHOWN) 12 x 20
BALL VALVE	PIPE CONNECTION BOTTOM	BALANCING DAMPER
GATE VALVE	PIPE CONNECTION TOP	MOTOR OPERATED DAMPER MOD
BUTTERFLY VALVE	FLOOR CLEANOUT CO	FIRE DAMPER WITH ACCESS PANEL FD
GLOBE VALVE	WALL CLEANOUT CO	ACCESS DOOR AD
BALANCING VALVE W/ FLOW METER FITTING (VENTURI TYPE)	HOSE BIBB HB	THERMOSTAT T
MULTI-PURPOSE VALVE	VENT THRU ROOF VTR	LIMIT OF DEMOLITION
3 PORT MODULATING CONTROL VALVE	HOSE END VALVE	CONNECT TO EXISTING
2 PORT MODULATING CONTROL VALVE	VALVE IN VERTICAL POSITION	
RELIEF VALVE		

MECHANICAL ABBREVIATIONS

ABOVE FINISHED FLOOR	AFF	EXTERNAL STATIC PRESSURE	ESP	MINIMUM CIRCUIT AMPACITY	MCA
AIR HANDLING UNIT	AHU	EXISTING TO REMAIN	ETR	MECHANICAL EQUIPMENT ROOM	MER
AIR PRESSURE DROP	APD	ENTERING WATER TEMPERATURE	EWT	MAXIMUM FUSE SIZE	MFS
ARCHITECTURAL	ARCH	FRESH WATER	FW	MINIMUM	MIN
AUTOMATIC TEMPERATURE CONTROLS	ATC	FAN COIL UNIT	FCU	MAXIMUM OVERCURRENT PROTECTION	MOP
BUILDING AUTOMATION SYSTEM	BAS	FULL LOAD AMPS	FLA	MEDIUM PRESSURE STEAM	MPS
BACK-FLOW PREVENTER	BFP	FINS PER INCH	FPI	NORMALLY CLOSED	NC
BREAK HORSEPOWER	BHP	FEET PER MINUTE	FPM	NOT IN CONTRACT	NIC
BACKWARD INCLINED	BI	FEET	FT	NORMALLY OPEN / NUMBER	NO
BRITISH THERMAL UNIT	BTU	FACE VELOCITY	FV	NON-POTABLE COLD WATER	NPCW
BRITISH THERMAL UNITS PER HOUR	BTUH	GALLON(S)	GAL	POUNDS PER SQUARE INCH	PSI
CAPACITY	CAP	GALLONS PER MINUTE	GPM	PRESSURE	PRESS
CUBIC FEET PER MINUTE	CFM	HEIGHT	H	QUANTITY	QTY
COLD WATER (DOMESTIC)	CW	HORSEPOWER	HP	RELATIVE HUMIDITY	RH
CHILLED WATER SUPPLY	CH	HIGH PRESSURE STEAM	HPS	REDUCED PRESSURE BACK-FLOW PREVENTER	RPBFP
CHILLED WATER RETURN	CHR	HEATING WATER SUPPLY	HWH	REVOLUTIONS PER MINUTE	RPM
CONNECT TO EXISTING	CX	HEATING WATER RETURN	HWHR	ROOF TOP UNIT	RTU
DRY BULB	DB	HEATER	HTR	REMOVE EXISTING	RX
DIFFERENTIAL BYPASS VALVE	DBV	HEAT EXCHANGER	HX	STATIC PRESSURE	SP
DESIGNATION	DESIG	HERTZ	HZ	STEAM	STM
DOMESTIC HOT WATER	DHW	INCH(ES)	IN	TESTING AND BALANCING	TAB
DIAMETER	DIA	KILOWATT	KW	TOTAL STATIC PRESSURE	TSP
DOWN	DN	LENGTH	L	TYPICAL	TYP
DIFFERENTIAL PRESSURE SENSOR	DPS	LEAVING AIR TEMPERATURE	LAT	UNLESS OTHERWISE NOTED	UON
DRAWING(S)	DWG	POUNDS	LBS	VOLTS	V
EXHAUST AIR	EA	LOCKED ROTOR AMPS	LRA	WIDTH	W
ENTERING AIR TEMPERATURE	EAT	LOW PRESSURE STEAM	LPS	WET BULB	WB
ENERGY EFFICIENCY RATIO	EER	LEAVING WATER TEMPERATURE	LWT	WATER COLUMN	WC
EXHAUST FAN	EF	MAXIMUM	MAX	WATER GAUGE	WG
ENERGY MANAGEMENT CONTROL SYSTEM	EMCS	THOUSAND BRITISH THERMAL UNITS PER HOUR	MBH	WATER PRESSURE DROP	WPD

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Approved: Chief, Facilites Engineer:
Approved: Director, Medical Center:

Project Title: REPLACE BUILDING 6 HVAC

Building No: 6 | Checked: SMM | Drawn: CCH

Location: VAMHCS MEDICAL CENTER WILMINGTON, DELAWARE

Date: 07/09/2012
Project No: 460-12-204
DRAWING NO: M-0
Dwg. 7 Of 21

DEPARTMENT OF VETERANS AFFAIRS

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